

ITEMS OF INTEREST.

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Notes from the Profession.

FOOD—ANIMAL AND VEGETABLE.*

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[Read before the Ohio State Dental Society.]

A food, according to the usual definition, is a substance which, when introduced into the body, supplies material to renew some structure, or maintain some vital process. And most people show, in every-day conversation, that they consider the main object of food to be the replacement of the *materials* of the organism, while, in fact, its real object is the renewal of the *energies* which have been dissipated in work. A man, like a steam engine, cannot give out energy, without his appropriate fuel, and, if the fuel is not supplied, the fire goes out, and the man dies.

Food-stuffs and coal agree essentially in the chief characteristics of their chemical composition. Both consist mostly of hydrogen and carbon, and both possess energy in virtue of the fact that their affinities for oxygen are not satisfied. Water contains hydrogen, and carbonic acid contains carbon; but we can get no energy out of these, because in them the oxygen has already united with the atoms for which it had affinity, and the separation necessary for dormant energy has ceased to exist. But in bread, potatoes, meat, or coal, the hydrogen and carbon are ready to unite with their equivalent of oxygen whenever the chance presents. All obtained their energy in the same way: The rays of sunlight falling on the original trees or plants, separated the oxygen from the water, and carbonic acid gas from the air, and built the hydrocarbons in their tissues. The force thus stored remains dormant till an opportunity occurs to reunite with oxygen, when it will once more assume activity, producing mental, physical and mechanical energy. The only serious difference between food and coal is that foods

[* This article is longer than we like, but is so excellent, in most respects, we gladly give it space. We hope it will be read carefully, especially as some points will be replied to by one of our most prominent dentists.—ED. ITEMS.]

contain another element, nitrogen, as well as hydrogen and carbon, and this nitrogen is absolutely necessary, if the animal is to continue to live.

Foods are derived from earth, water, and air and may be solid liquid, or gaseous, organic and inorganic. The popular notion of food as solid substances derived from animals and vegetables, while comprehensive, is too exclusive, since the water we drink, the air we breathe, and certain mineral substances found in the earth, are of no less importance as foods. It is understood the structures of the body are in a state of continual change, so that atoms and molecules which are present at one hour may be gone the next; and when thus consumed by work, the tissues will be so far wasted, unless the process of waste be accompanied by renewal. This is brought about by the ingestion of such materials as, by vital activity, may be transformed into tissue.

Vegetable food contains, as its essential nutritive elements, albuminates or nitrogenous compounds, fatty matter, and hydrates of carbon, with water and nutritive salts. Such food, therefore, contains the same elements as that derived from animals; but in point of digestibility the two differ widely, meat being very much more easily digested than vegetable food. What renders the latter harder to digest is the fact that the albuminoid substances, fatty matters, and starch are there incased in a coating of cellulose, to break up which requires some time. Starch, before it can be absorbed, must first be changed into sugar, which process may occur in the mouth, if the food be chewed long enough, or in the intestines, when it comes in contact with the pancreatic and intestinal juices.

Of all the influences which determine the life of the individual, and on which his weal and woe depend, undoubtedly the nature of his food is one of the weightiest. Every one has for himself experienced how not only the strength of his muscles, but also the course of his thoughts and whole mental tone are affected by the nature of his food. Every nation has its peculiar way of cooking; but the Yankee mode of spoiling eggs, and concocting rank and indigestible dishes, delusive to the eye, deceptive to the palate, and a deadly snare to the digestive organs, is purely American. The stomach may not be the seat of the soul, but the road to the heart and soul, and the health of the brain, lies through it; and, indeed it is said that "a man's heart and stomach are interchangeable terms."

Foods are classed into different groups, according to the influence they have on the body, in virtue of their essential constituents. And though the classification, like every artificial arrangement in nature, is only approximately correct, it gives some ground to stand on. Blood-formers, or albuminates, are those albuminous materials which

constitute the nutritive elements of the blood, and enter into the composition of the ligaments, bones and muscles, on which the exertion of force specially depends. The heat-producers, or respiratory foods, are those rich in carbon; these specially serve to support, with the aid of inspired oxygen, the process of combustion so necessary for the purposes of the organism. Finally, there is a third group of substances—the nutritive salts—which are of an inorganic nature, and which, after the combustion of the food remain in the shape of ash. All these food materials are essential, since with them the organism is built. Life is an unceasing process of waste and repair, and the food must make good the loss the tissues suffer every instant. We must supply even those substances which are contained in the living body in small quantities, for on these depends the activity of important organs. Such substances are common salt, magnesia, lime, phosphorous, iron, and others less common. But none of these groups is, by itself, sufficient for nutrition. They must all be combined. Blood-formers, heat-producers, or nutritive salts are not separately foods, but only factors of food; each as indispensable to the organic processes as air and water, but each incapable by itself of supporting life. One cannot live on albumen or on fat. Without the phosphate* and other salts of lime neither bone nor tooth substance would be formed, no matter how much pure albumen we ate; on the other hand, without albumen no muscular tissue would be made, though we were to gorge ourselves with sugar and salt. Finally, without fat, no brain. But we properly enough give the name of food to milk, meat, and bread, for in them all in different proportions, the three conditions are present; and, in order to obtain them in definite quantities, mixed foods must be used. Now, in nature they are not distributed in any such definite proportions, there the greatest diversity is found. One food contains principally blood-formers; another heat-producers; this contains only one of the nutritive salts, that another. However, we must not eat a too mixed diet; for if one swallows without thinking, and often without knowing, incompatible and warring articles of food or refreshments at the same meal, he turns his stomach into a sort of chemical laboratory, or fermenting tank. Such experiments are sure to make disturbance and various internal commotions, disagreeable and perilous in their very nature. It should need no chemical analysis to tell us this, experience is enough.

There are some who make wheaten food, and not beef, the basis of alimenation, wheat and the allied sub-foods, including beans, lentils, peas, and rice, taking the place of animal foods, including besides fleshmeats, butter, cheese, eggs, and milk. Sound, ripe wheat, deprived of its outer silicious husk, coarsely ground and mixed with

*Not even the primary cells, without the phosphate.—WATT.

water, and subjected to such kneading and baking as will prepare it for mastication and digestion, is the staff of life. It must be chewed and salivated to insure digestion. Wheat, coarsely ground and unbolted, contains all the natural nutritive elements of the grain. The salts of lime, in unbolted flour, are instrumental in the production of firm, strong bones and teeth. If this is excluded the bread is no better in any way. It is estimated that every child consumes one half barrel of flour every year. If this is true, and it is fed on fine white flour, it is yearly deprived of about twenty pounds of the elements that ought to be taken into the system to make solid bones and teeth. Besides, this coarsely ground grain possesses the mechanical properties which distend the intestines, promoting their peristaltic action. It is, therefore, anti-dotal to dyspepsia. For children it is specially valuable, and its substitution for common bread, with the use of fruits instead of flesh, till the deciduous teeth shall have given place to the permanent, would be of incalculable value, and contribute to the formation of perfect teeth. This process of feeding might be kept up throughout childhood, and even adult life, for in vegetables we have foods closely analagous to the flesh of the animals. Thus, in addition to the water and salts, common to both, there is vegetable jelly, albumen, fibrine and caseine, all having a composition almost identical with animal albumen, gelatine, chondrine, and caseine. Such vegetable foods as contain albumen, when taken with those containing starch, notably aid in the digestion of the latter. And still, taking an equal quantity of vegetable and animal albumen, twice as much of the latter will be absorbed. This difference in absorption makes the essential difference between the two foods. Bread, rice, potatoes, maize, taken in any quantity can scarcely support the life of any man or carnivorous animal, as they communicate no bodily strength. Yet, with the addition of a small quantity of albumen, they may suffice. Of course one may sustain life on distinctively vegetable fare. The vegetable eater can extract from his food all the principles necessary for life and its activities, provided he selects vegetables which contain these elements. But he must consume the best cereals, wheat or oats, or the legumes, peas, beans, or lentils, or else he must swallow and digest a large weight of vegetable matter of less nutritive value, and therefore, containing one element in great excess, in order to obtain what he needs. All this waste of digestive energy could be saved by the judicious admixture of animal and vegetable materials. So the question as to whether man is designed to be a vegetable feeder, a flesh eater, or an omnivorous animal, seems to favor the latter supposition. His teeth show that he is and has been omnivorous, to the extent of his means. And as man is physiologically constituted so as to be able to derive all that is necessary to the healthy performance of

his functions from the animal or from the vegetable, either singly or combined, he can scarcely be regarded otherwise than as qualified to be omnivorous. Add to this his possessions of an intelligence, which enables him to obtain food of all kinds from all climes, to investigate its qualities and render it more fit for digestion, by the use of heat and of condiments—powers which no other animal possesses—and there appears no reason for limiting his diet to the products of either kingdom exclusively. We all like to find our food agreeably flavored, and to have it prepared in such a way as to acquire the peculiar flavor that pleases us. For the same reason we like a variety in food. In time the persistent impression of one flavor produces disgust, just as the continued use of one article of food will cause a dislike for it.

A man who is chopping wood, in an atmosphere at zero, and he who uses only his brain, in a room at seventy degrees, consume different elements in different proportions, and, therefore require different elements of food. In the tropics, of course, the most wholesome and agreeable diet is vegetable; in temperate regions this is supplemented by milk, (butter and cheese,) poultry, fish and different meats; while in colder regions, vegetable products are hardly to be obtained, and flesh and fat are indispensable. Thus it appears that *man* is clearly omnivorous, while *men* may advantageously be vegetarian in one climate, mixed feeders in another, and exclusively flesh-eaters in a third. For all who are occupied with severe and continuous mechanical labor, a mixed diet, of which cereals and legumes form a large portion, and meat, fish, eggs, and milk a moderate proportion, is more nutritious than chiefly animal food. For those whose labor is mental, and whose muscular exercise is inconsiderable, still less of concentrated nitrogenous food is desirable. A liberal supply of cereals and legumes, with fish and flesh in their lighter forms, will better sustain such activity than large portions of butcher's meat, two or three times a day. But after all, the old saying that "We live, not by what we eat, but by what we digest," is true; and what one man may readily digest another will die in attempting.—*Dental Register*.

SENSITIVENESS FROM ABRASION.

For many years, I have practiced but one method for this difficulty. Cut off the point of an excavator, where it is the size of the wire of a hair pin: half an inch from the end give it an angle of twenty degrees. Dry the tooth and hold the instrument in an alcohol blaze, near at hand, till it is slightly red, and pass it quickly to the sensitive surface, moving it rapidly across it for not over three seconds. One application is usually sufficient. If the pulp was exposed in the least, I should pursue some other method.

E. P. BYRAM.

COOPERSTOWN, N. Y.

THE OLD AND THE NEW.

DR. W. E. DRISCOLL, MANATEE, FLA.

"It is claimed by the older members of the profession, that the dentures of thirty years ago were more natural in appearance, more useful for the purpose of mastication, and more worthy of the name "prosthetic" than are those made now of rubber plate and section teeth." "Unfortunately for the credit of the profession, it is not only the older dentists who are deploring the decline of prosthetic dentistry. Reports of the various dental societies show that in the judgment of our leading men, this art has declined in excellence." "With the invention of section teeth, the necessity for taste, skill, and judgment on the part of the dentist, no longer existed, or if it does, it can no longer be exercised."

The above quotations are from an article entitled "Dental Prosthesis," by Dr. E. J. Way, in the *Ohio State Journal of Dental Science* for January, 1885. While very much of the article will be endorsed by the body of the profession, the part quoted, will be questioned by some portion of the profession, or they will stand in a very inconsistent position before the world.

The results of old methods may be ascertained with sufficient accuracy, if we can divest ourselves of prejudice, and seek only for the truth. There were objections to old swaged plates, as they would not have become so nearly obsolete.

1st. There was the great difficulty and labor of producing a set of teeth by that plan. The most capable men found it necessary to shut themselves up from all disturbing calls for a day or more at a time when a case was in course of construction. This very few could afford to do now. Hence, like any other labor, if it will not pay, it is abandoned.

2nd. To take the experience of the profession at large, a very small proportion of their patrons will elect to have swaged work, even with the most favorable representations of the dentist, since rubber and similar bases can be furnished so much cheaper, and really of better fits. These considerations would preclude a return to old methods with anything like unanimity, even if they were so much superior to present methods, as Dr. Way insists.

And right here we will find the considerations for a return to old methods by no means so strong as his language would indicate. With sufficient familiarity with the various patterns of gum section teeth now offered by manufacturers, there is no case that can not be fitted to look as naturally, and to restore the features more successfully with sections, as with single teeth. This is so when the porcelain gum does not show, and it is a still greater advantage when it does show.

Of course, this requires us to keep on hand a great variety of sections, which every "first class" dentist is supposed to do; and he will not know what pattern to select without a great deal of experience and study, but with certainly less than to learn to carve them as Dr. Way

advocates or even to place single teeth so as to be superior in appearance. Much is said about the short time most dental students can be induced to devote to preparation for practice, and I submit that he can not well spare from other branches, time to learn to manufacture porcelain teeth when experience has proved that he can not compete with the regular manufacturer, or with the dentist who buys of the specialist in this line. If a dentist finds use for a pattern of section gum teeth, not yet in the regular stock of the different manufacturers, he can easily have his ideas carried out by them. Then his genius will not be hidden in his own laboratory, he will benefit others by having his superior forms thrown on the market.

Much is said against the uncleanness of the cheap bases. As compared with the open backed style of swaged work, the advantage is decidedly with the rubber and the celluloid bases, with the same care on the part of the wearer. With the average wearer of artificial teeth, rubber is the very superlative of purity and cleanliness. While gold plates, made by one competent to overcome the great difficulties in its management successfully, with no cavities for the accumulation of filth, may be, and are, better than vegetable bases for perhaps nearly every case. It is useless to "deplore" the substitution of rubber and section teeth for the styles of thirty years ago. The change was based on natural causes that will preclude any general return to old styles. I have been thus brief in deference to the purpose of the ITEMS to present every subject in the fewest and plainest words possible.

SENSITIVENESS IN TEETH.

DEAR ITEMS:—Your valuable February number came to hand in January. Now this is hurrying up matters a little, and do you not think that perhaps you read my essay a little too hastily in your anxiety to get your journal out promptly.

I hardly can see how you could be confused by the statements in my essay on inflamed and sensitive teeth, when I say that it has taken me years to dissassociate the idea of pain in what is *ordinarily called* the tooth; and that when we strike our instruments across the "flinty materials" which constitute the *exterior tooth*, etc., that these (*i. e.* flinty materials) have no power of pain in *them*. Further on I say "we have thus *two different ways* of looking at a tooth corresponding to the *two different substances of which it is made*; the one way as a *sensitive* and often a *highly sensitive* organ, and the *other way* as an entirely nonsensitive one.

And dear ITEMS please quote me aright. Let me repeat from my essay. "I know that my critical friends on my right hand and on my left will say that a tooth is *not* an inert substance, but in affirming that it is, *I take into consideration the thorough knowledge of my audi-*

ence on dental subjects and trust in return that I shall have credit for so much of the same *as not to be taken up on this technical point* as I have (*i. e.* we should have) more regard for *results* than *theories*. This modifies the statement. Perhaps your gentle criticism was intended to bring me out, and I think it will just a little, just enough to say that for more than twenty-five years the subject of what causes pain in the bony structure of the tooth has been thoroughly discussed and hundreds of microscopes have been taxed to discover the cause, whether nervous fibrils, soft tissues, or what not, and as yet we are uncertain of the cause; but I have found that a small quantity of arsenical paste will destroy all sensitiveness, and I hardly thought that *you* would bring up this technical point.

Too much theory is not profitable and dentists turn their backs upon it. Of what use is it they say, whether the "acid" makes the "bug" or the "bug" the "acid." The speculative mind may go around forever in a circle on this question, meanwhile the journal that is the champion of this question is laid up in the *archives* forever.

I think my essay is an eminently practical one. I have been twenty years preparing the materials for it and I cannot see how any one who has not thought and experimented years on the subject can at once realize its full meaning. I hope at some future time to give at length the results that have been proven to me from practice of the theories advanced. In the meantime I am certain that the essay will bear reading again—yes and again.

Faternally yours,

JOHN T. CODMAN.

347 COLUMBUS AVE., BOSTON, Mass., Feb., 1st, 1885.

[The above shows there is not so much between us as at first appeared. We both believe there can be such a thing as a sensitive tooth, though we have different ways of expressing ourselves.—ED. ITEMS.]

I have used cocaine with good results in extraction of teeth. It requires two or three applications from three to five minutes apart, and then wait perhaps five minutes. It does not produce perfectly painless extraction, but to the mind of the patient there is a satisfaction that something has been done for their relief; and in every case where I have used it they recommend it highly.

R. L. DEMMING.

DORSET, Vt.

Embryology, by J. L. Williams, D.D.S., New Haven, is a very interesting essay. Anyone wishing to study this subject minutely would do well to possess it.

MAKING OUR OWN INSTRUMENTS.

G. W. ADAMS, D.D.S., BRISTOL, PA.

I cannot remember where I heard it stated that "every dentist should know how, and be able to make, and repair, his own instruments."

With all due respect to the author of this, I ask a small corner in the ITEMS to record my testimony against it. It is well, of course, for us all to possess as much practical and *useful* intelligence as we can profitably make use of. But the scattering of our forces in such division of labor (and of knowledge) is weakening rather than strengthening. To be skilful in our profession, and successful in its practice, we must direct our attention constantly to its prosecution; we have no time to spare to spend on side issues. If we have full practice, we'll all find it much cheaper, as well as better, to *attend to our own business*, and let our instruments be furnished us by a skilled and competent artizan. There was a time in the history of dentistry, when it was needful to know how to make our own instruments, for we could not get what we wanted from others; and broken points had to be repaired while the patient waited. But those days have passed away. There was a time also, when it was necessary for us all to make our own teeth. But who makes his own teeth now? though some of us know how. We can earn more money at our legitimate work.

I think the author of my quotation asserted that the knowledge of instrument-making was necessary, in order that the operator might "know how to keep them in order." Not at all. Who of us knows anything about *knife making*? yet who of us can't sharpen a jack-knife? Must a boy on the farm know how to make a scythe before he can learn to be a good mower? Must a lady know how to make a sewing machine before she can operate it properly?

Let us concentrate our forces; and attend only to that which properly belongs to our calling; and our capacities to do good work will be increased thereby. The division of labor, the assignment of certain parts to different individuals, is adopted in almost every branch of industry. In days agone, a wheelwright would make a wagon *in full*; but now one man will make one part; another man will make another part, and so on—each having his allotted share to attend to, without meddling with other parts that he knows less about. By this means each can do his own work better, and do it quicker; and thus make more money for himself and his employer.

The Mississippi Dental Association meeting will be held March 4th, at Cincinnati.

To be proof against falsehood be faithful to truth.

CONTINUOUS GUM.

HASKELL, CHICAGO.

Why this work is not more generally used is due to various reasons. When first introduced to the profession the instructions which were given by some of the agents, sent out to introduce it, were of such a nature as to make the work a failure, particularly when it was directed that *backings were unnecessary*. Then the material (body and enamel) were very unreliable for two years. It was so discouraging to many who undertook its manipulation that they gave it up thoroughly prejudiced against it.

The amount of labor involved in making alterations, or making over, when the patient was dissatisfied, or when the fit was not what it ought to be, has been another factor in the case.

The supposition, on the part of some dentists, that the *weight* was objectionable, has deterred others from making it.

The lack of *proper instructions* in making it, and a shipshod way of doing it, and the consequent failure of the work, has discouraged others.

The difficulty experienced by many in *repairing*, has deterred others from continuing its use.

In regard to these difficulties I have to say, that when I bought my "office right," and obtained instructions I saw at once that work made under them would prove a failure, and so made the work according as my judgement dictated, and have used it ever since with the exception of two years, while the *material* was being perfected.

There is no method for artificial dentures that require so much care in making; many put no wire binding around the edge; no doubling of the back of the plate; no continuous backing, with foot-piece; improper articulation, so as to bring unnecessary strain upon the work, (which is true of other work); no caution to patients never to reach over a basin, to avoid breaking in case of dropping.

When proper care has been taken in fitting the plate, to be sure that it is all right before proceeding further; when the teeth have been arranged by the mouth so the patient has seen them before finishing; when every step has been carefully gone over, there is seldom a necessity for change after completion.

The question of *weight* I have never found to be a *factor* in *upper* dentures, but a necessary one in *lower*. For thirty years I have made Continuous Gum, and have never seen occasion to use any thing else on account of weight. Have had patients complain of the weight of rubber, and afterwards wear the Continuous Gum, with no sensation of weight. It has sometimes seemed to me that the principle of gravitation was reversed; as though the heavier the plate, the less trouble the patient had with it.

Everything depends upon the *fit* of the plate, and the *proper*

antagonism of the teeth when finally adjusted in the mouth. A plate which *fits the mouth*, will adhere, for all practical purposes; you may call it suction, cohesion, adhesion, capillary attraction, or any thing else that suits your fancy, so long as you have secured the desired result. I find no difficulty in securing this result, with plaster impressions and Babbitt metal dies, in all cases. There is only one thing to be especially careful against; and that is, allowing the plate to bear on the hard palate which it must inevitably do with "air chambers," and for this, if no other reason, they should be discarded; but be careful that the rear edge lays snug, (no raised ridge across being necessary) so that the air will be excluded, and yet not so snug as to cause irritation.

Too much of this work is put together in a careless, ship-shod way. No work so amply repays careful manipulation in securing artistic results.

In repairing, there is *no difficulty whatever*, if the case has been put through a proper *drying process*. I am just as well satisfied with repairing Continuous Gum (and the worst of them), as repairing rubber or gold. But in proportion to the cases made I have far less of them to repair, than of other work.

There is scarcely a community where more or less people are not able to afford this work; they will have the best that money can buy in every thing else but the teeth; and there are many cases where no other method will produce a satisfactory result, artistically, and I refer to prominent upper maxillary and short lip, where a porcelain gum must be used, and a very thin one, often high, with the teeth set well in under the margin.

In articulating teeth, the upper and lower front teeth should not be allowed to touch. The teeth should be placed, as a rule, over and a little to the inside of the lower plate. This will aid materially in preventing the rocking of the plate, and, in many cases, where atmospheric pressure is but slightly available, make mastication easy. In this way, in several instances, patients have been enabled to masticate at the first meal after their insertion, although, for a long period they have worn plates which were useless in this respect because the rule was broken, either from a desire on the part of the dentist to give them *tongue room*, or from an eagerness to restore their youthful appearance by making plumpers of the bicuspid and molar teeth.—*Ambler Tees*.

Producing Suction.—I want to add my word to that of Dr. Best in the December ITEMS. His idea of burring small pits all over the palatine surface of a plate of artificial teeth is a good one. For the last seven years I have used a similar device with the best of results.

J. H. REED.

THEORIES OF CARIES.

DR. HENRY SEWILL, ENG.

There are three theories which may be divided into three categories. First, those that would make out caries to be a true disease; carried on by pathological action initiated within the tissues. Second, those admitting the disintegration to be due to external agents, but insisting that these agents are inert without the prior occurrence of morbid changes in the tissues, lessening their power of resistance, and predisposing them to attack; and thirdly, those theorists which admit that caries is entirely due to external agents, but maintain that the tissues—or at least dentine—are not passive under the process of disintegration; and assert that the process is accompanied by inflammatory phenomena, or some kind of vital reaction.

The enamel is developed from a pulp composed entirely of epithelial cells, and it retains its epithelial character throughout the process of calcification. This process begins at the surface of the dentine—of which surface calcification has previously commenced—and progresses outward. The calcareous matter is deposited through the medium of vascular papillæ, which, arising from the contiguous surface of the dental sac, penetrate to a slight depth the external epithelium. Once formed, enamel is cut off absolutely from all vascular connection. To believe in the possibility of nutritive changes inducing morbid states in this tissue, we must be convinced there is in this almost homogeneous calcareous mass a vital circulation which could assimilate molecules of nutritive material; and convey nutritive and effete material to and fro by the vessels of the pulp, and then through the odontoblast layer *via* dentinal tubes and fibriles to and from its destination, as far as the surface of the enamel. An imagination capable of conceiving all this would have, of course, no difficulty in framing a theory of caries to match. And let it be borne in mind that it is in enamel that caries almost always commences.

Similar considerations apply with almost equal force to dentine. The dentinal pulp is derived from the rudimentary mucous tissue. After a time the epithelial cells, of which it is largely composed, become specialised and arranged at the periphery to form the odontoblast layer or *membrana eboris*. By calcification of these cells dentine is formed; the uncalcified center of each cell constituting the fibril. The remains of the dental papilla consisting of fine connective tissue, bloodvessels and nerves, with numerous cells, occupies permanently the central cavity as the pulp or nerve of the tooth. The outer cells of the pulp form a layer on the surface of the dentine, the wall of the pulp cavity, and send off processes which are continuous with the fibrils. The vessels, therefore, do not ramify immediately in contact with the dentine.

Looking at these facts, and at all the anatomical characters of the tissue, it is scarcely conceivable that dentine, more than enamel, could be the seat of nutritive or of morbid changes.

We may take a tooth which has been extracted for months or years; we may cut off the crown of such a tooth, and affix it, as an artificial substitute, by a pivot or peg permanently to the root of a broken-down incisor, thus placing this dead crown in the fluids of the mouth, surrounded by all the circumstances favorable to its decomposition, and yet in this situation it will be neither more or less liable to decay than its living neighbors—teeth with living pulps and living periosteum; and, indeed, so placed it will often outlast some of its neighbors if these are of innate structural inferiority. Should such a dead pivot tooth decay it will decay precisely in those situations most liable to attack were it a living organ—in places favorable for the lodgment of decomposing particles, and on exposed dentine. If the surfaces filed in preparing the crown for pivoting be finely polished, so as not to allow the ready adherence of debris, these surfaces will, like those of a living tooth under similar circumstances, be much less liable to decay. When such a dead tooth crown does decay in the mouth it is affected by true caries identical in every respect with the disease in living teeth*. Dentine derives what low vitality it possesses from the pulp, yet caries is neither accelerated nor retarded in its progress nor altered in character by death of the pulp. Yet teeth affected by chronic wasting of the alveoli, are not specially liable to caries. I have noticed a singular absence of this disease in the worst cases of premature shedding of the teeth. In such cases loose teeth often remain almost completely denuded of periosteum, supported by the surrounding gum, between which and the root a probe may be passed round almost to the apex. Surely this is a condition of impaired "vitality" in the most vital portion of the hard tissues—the cement—and in the whole tooth, and yet caries, is not a common accompaniment of this malady.

Degeneration occurs in non-vascular structures. In bone and cartilage, structures which most resemble the dental tissues, pathological changes take place closely associated with inflammation and leading to alteration in the tissues commonly spoken of as degeneration, but which, perhaps, ought not strictly to be classed under that heading. An example in bone is afforded by the disease called molities. In this affection, the pathology of which is demonstrable, the bone is gradually softened, the cancelli slowly enlarges as the earthy constituents are carried away through the system till, the whole of the calcarious matter being absorbed, nothing remains but the periosteum enclosing a mass of fatty matter. The whole process is brought about

*Is this proved, or merely assumed?—ED. ITEMS.

through the medium of the vascular system, without the agency of which such changes are demonstrably impossible. Cartilage is destitute of nerves and devoid of blood vessels, but undergoes constant nutrition by imbibition from neighbouring vessels through its vascular covering, the perichondrium. Cartilage is a cellular structure consisting of nucleated cells supported by a matrix, and it is by means of these cells that nutritive material is distributed through the tissue. The essential feature in all diseases of cartilage of a degenerative kind is increased cell development with disintegration of the matrix. The tissue changes can be clearly followed and demonstrated. The cells become enlarged and filled with nucleated corpuscles, and then bursting set free their contents amongst the altered matrix, which at the same time has been undergoing a process of softening and disintegration. At later stages of the disease the presence of abundance of fat globules gives to the condition the character of fatty degeneration; in other instances fibrous tissue taking the place of the true cartilage elements destroyed, a species of fibroid degeneration is produced.

Examination of the process, of retrograde metamorphosis or degeneration, in vascular and non-vascular tissues, fully demonstrates the fact that such a process is impossible, except in tissues freely supplied with blood, or made up of cellular elements undergoing nutrition by imbibition, and capable of interstitial change of the kind I have described as occurring in cartilage. In the absence of any reasonable theory upon which the possibility of retrograde metamorphosis of the teeth can be made clear, and in the absence of a specimen of the dental tissues in a condition of degeneration, I can only characterise the term as ludicrously absurd. If it is possible to produce a specimen of the dental tissues in a condition even capable of being mistaken for retrograde metamorphosis, I shall humbly apologise for stigmatising the term in this connection as ludicrously absurd.—*Part of Essay.*

Platinum added to an alloy of gold and tin produces negative results; when combined with tin, silver, and gold, however, the real value of platinum becomes apparent; with the proper amount of mercury it seems to confer on such an alloy the property of almost instantly setting, as well as greater hardness. Thus it will be seen that the qualities claimed for platinum *per se* belongs in reality to the combination of tin, silver, gold, platinum, and mercury, since if any one of the others is omitted the platinum not only remains passive, but actually, by its presence, causes marked deterioration of the qualities essential in a dental amalgam.—*Chas. J. Essig.*

BE rather desirous to see how much better you can do than to point out the defects in what your neighbor has done.

HOW TO KEEP CHILDREN'S TEETH GOOD.

"MRS. M. W. J."

[Concluding Letter of "A Mother to Mothers."]

In conclusion, I will give you only one single case, though numerous others might be cited, in illustration of what can be, and has been, accomplished by carefully and thoroughly following such a system as indicated. It is the history of a family of five children, as narrated to me by their dentist, who was also their father.

There was every reason to anticipate *poor teeth* for them, for on the *paternal* side, though the grandfather had fair average teeth, he lost them all before the age of fifty, while the grandmother lost all of hers before the age of thirty. The father, appreciating the value of his teeth, kept them in good condition by the most watchful care, but has numerous large fillings. Of his two sisters (he had no brothers), one wears an artificial denture; the other—much younger—has most of her own teeth yet, but they are very frail, and consists more of filling material than tooth substance.

On the *maternal* side, the grandfather was toothless from the earliest recollection of his children, and the grandmother lost all of her teeth before the birth of any of the grandchildren to be mentioned. The mother wore a full upper and lower set before the conception of her first child; her oldest sister wore six upper front teeth on pivots before the age of fourteen and a full set before she was twenty; the second has very frail teeth and only retains them by the greatest care, all of them having fillings; the third has but a few ragged remnants of teeth left, and only waits for courage to have them extracted to wear a full set. No brothers.

Knowing all this and having given the subject much study, the father early endeavored to impress on his wife, his views of her responsibility in the matter.

He laid before her a theory of tooth-culture by tooth nutrition, and prescribed the diet and "drugs" by which he hoped to provide suitable nutritive elements, first to the embryo through the mother's nutrition, second to the babe through her milk, and third to the babe itself in its diet, exercise, etc.

But she responded but poorly to his efforts in the case of the first child. The prescribed diet was distasteful, with its brown bread, oat-meal porridge, etc.; the lime water and other prescriptions were unpalatable; in short, to use her own words, "other people's children had teeth, and she supposed hers would, too, and she was not going to subject herself to any such vagaries in support of mere scientific theories."

Being young and self-willed, and not long married, she had things pretty much her own way; but she had the mortification of finding

that her baby had soft, chalky, defective teeth, which before its third birthday had already received thirteen fillings, besides which it early suffered the loss of a lower molar, thereby, to a critical eye, marring the perfect symmetry of the features.

Concluding that it might perhaps be wiser to test the matter, radical changes were made in the diet and habits of the first child, and the mother adopted the prescribed *regime*, partially for the second child, and pretty fully for the three which followed. Bearing children rapidly, the first child being but little over four years old when the fourth was born, she was, however, unable to give that close personal attention to their teeth necessary to their absolute cleanliness and perfection.

Necessarily left much to the ministrations of ignorant and careless servants, their six-year molars were neglected, while their diet, dress and exercise were often the very contrary to what they should have been, though the father, of course, gave them all the attention, possible, in the little time that could be spared from his professional duties and the care of an invalid wife.

But, with all these drawbacks, let us see the results of even the partial following out of the theory of *embryonic and infantile dental nutrition*:

The oldest child had the soft, chalky *baby-teeth* so hardened and reconstructed as to require no further fillings, after the thirteen put in before the third birthday, as already stated, and now, at the age of seventeen, with the exception of a slight irregularity resulting from the unfortunate early loss of the deciduous lower molar, as stated, has a perfect set of teeth, of fine structure and quality, with only very small fissure-fillings in two of the first permanent molars, which, in consequence of inherited defective fissures, required attention within a few months of their eruption; all of her teeth are otherwise intact.

The second child, a boy of nearly fifteen, has as even and sound a set of teeth as can be found anywhere; the upper cuspids only being a little too prominent for absolute regularity.

The third, a girl of fourteen, has thoroughly sound and perfect teeth, with the exception of the fissure fillings as in the case of the first child, but is tardy in erupting the second bicuspid.

The fourth child, with the exception of the same slight fissure-fillings, has absolutely no imperfection whatever in her teeth, either in size, color, quality or position.

It is too early to pronounce judgment on the permanent teeth of the fifth child, as he is but seven years old; but as his deciduous teeth have remained intact with the exception of minute approximal fillings in the upper central incisors, which are now replaced by permanent teeth of fine quality, and as his six-year molars are of good texture I

think it is fairly proved by this case alone, even were there no others on record, that, by a judicious system of diet, selecting such articles of food as offer the greatest abundance of mineral elements; by keeping the system in such a condition of general good health, by bathing exercise, fresh air, etc., that these elements will be assimilated and appropriated by the organs which specially require them; coming generations may be provided with *strong sound teeth*.

If such a system could be universally adopted, disease would be practically banished from the world.

Strong, hearty, well nourished and well developed men and women would replace the pale, puny, half starved invalids who now form such a large portion of our population.

MOTHERS! to you is committed the responsibility of *beginning* this great work. In the words of another: "Important as it is in reference to the present, its magnitude awes us when we consider it with relation to the millions yet to come."

[This closes the letters of Mrs. M. W. J., as published in the *Southern Dental Journal*. See editorial notice on the revised edition of this work.]

MUCOID OR PURULOID ENGORGEMENT OF THE ANTRUM.

JOHN S. SMITH, D.D.S., LANCASTER, PA

Mrs. H., married, aged 24 years, was brought in consultation to me in August, 1883, by her dentist, Martin Musser, D.D.S.. of this city.

The patient had suffered for a period of nearly two years with neuralgia and periodontitis at times in her left upper jaw and face. The pain was at first felt in the pulp of the first bicuspid tooth; the pulp was subsequently devitalized, and the canals filled with a temporary filling. For certain reasons the operation was not completed with a permanent filling. The case came into Dr. Musser's care, who finally extracted the tooth, which gave no relief. The face continued swelling, the pain became unbearable, and it was concluded to consult other advice.

I made a thorough examination of her mouth and teeth on the effected side. The gums over and round the first and second molars were inflamed. These teeth were filled with large gold plugs, which occupied the crowns, and on percussion with an instrument showed some degree of pain. The wisdom tooth was missing, not having erupted. Suspecting diseased condition of the antrum, my attention was directed to the nares of the effected side, which was found free from moisture.

There was noticed a discharge of mucous nature escaping from the inner canthus of the eye; the conjunctiva was inflamed, with an inter-

mittent flow of tears over the lower lid ; the sight was somewhat defective at times. The patient showed symptoms of a marked anæmic condition ; had lost in weight ; appetite poor ; the pain was intermittent ; when it was the most severe she located it under and back of the orbit, and in the body of the cheek bone ; here the pain was characterized as a dull sensation, and at times producing a fullness as though the face would burst.

Further examination revealed uniform fullness over the region of the antrum, and slight fluctuation on pressure, and tenderness to the touch : the skin presented a blush-red appearance with a number of rose-red and purplish spots scattered on its surface. This condition was more noticeable when the pain was greatest, thus showing the deep-seated congestion of the parts involved.

Diagnosis.—The foregoing history of the case was sufficient to establish the fact of an engorgement of the antral cavity, brought about by the result of a reflected chronic periodontal inflammation. The tumor noticed on the cheek was distinguished from others that might effect this particular locality : first, by the history of the case ; second, by the dryness of the nares of the effected side ; third, by the gradual and regular enlargement ; fourth, by the non-association of the integuments of the cheek ; and fifth, by a fluctuation which it yielded on pressure. The long-continued periodontal inflammation resulted in the engorgement of the antral cavity by a reflected chronic condition of the parts, which were filled with a profuse discharge and closure of the orifice or outlet of the sinus, thus causing the attenuated condition of its walls, which was the result of the protuberance noticed on the cheek. One of the weakest points had finally given way ; namely, a slight rupture into the orbit. From this fistula flowed a muco-purulent fluid (inodorous). This established our diagnosis—mucoid, or purulent engorgement of the antrum.

Treatment.—"To treat successfully such a disease we have only to find the source of offence, and where it is possible, remove it."

The first superior molar was directed to be removed, which was done by Dr. Musser a few days later. The pulp was dead. There was no discharge from the alveolus after its removal. Disappointed in this, an attempt was made to puncture the antrum through the palatine alveoli socket of the tooth. The pain being too great, further operation for the time was abandoned. A few days later the patient was again brought to my office, suffering greatly ; the face was swollen, and she was feverish and the mouth was hot. These symptoms were controlled by proper remedies, and an external application of lead-water and laudanum was ordered to be applied, and the patient dismissed till the inflammatory condition had subsided. At the next sitting, a few days afterward, the second molar was removed and the

pulp also found dead ; and there was some absorption of the alveolar process (buccal portion). Upon its removal, a small quantity of thin ropy fluid escaped with the blood. The outlet not being sufficiently large, the patient was etherized by Drs. D. R. Summy and Musser, and I passed a suitable-sized trocar through the alveoli of the palatine fang, opening into the antrum ; this was followed by more abundant purulent secretions. The cavity was then thoroughly washed with tepid water, and the following stimulant wash prescribed :

R	Glycerine	℥j.
	Tinct. opii camph.....	℥ij.
	Aque colonie	℥iv.

M. S.—To be thrown into the cavity daily with a syringe.

This, in addition with phenol sodique diluted and warm water, formed the local dressings with observing to keep the opening patulous with cottonwool.

The general systemic treatment consisted in taking good, nourishing food, free exercise in the open air, and the administration of copabia, tincture of iron, and quinia.

In six months the patient made a good recovery from the antrum trouble. The purulent secretion from the eye ceased, but at this writing the eye still remains weak and at times a profuse lachrymal flow over the lower lid, notwithstanding she has had the probe passed for stricture of the lachrymal duct. Hopes, however, are entertained by the ophthalmic surgeon having this now under treatment, of a final cure.—*Medical and Surgical Reporter*.

[Should there not have been a more thorough treatment for the cure of the affection? This puruloid engorgement of the antrum had a cause—probably an ulcerated tooth. We will suppose that was removed. It looks as though the second tooth extracted was the offending member, yet this is not clear. But often the removal of the cause, does not cure the disease. In this case the mucous membrane of the antrum was evidently seriously effected, probably ulcerated. Was this cured by the treatment?—ED. ITEMS.]

For Unbroken Chilblains.—There is no end to “sure cures” for chilblains, many of which are variably effectual in certain cases. A writer in the *Druggists' Circular* recommends a mixture of two parts of tincture of iodine with one part of camphor, to be applied with a feather night and morning. He adds, “I have had people come from all parts of my district for this chilblain remedy, and I have never known it to fail. When suffering myself, last winter, from frosted feet, this was the only thing that gave me relief.”

GENIUS is often but another word for persevering industry.

CHLOROFORM: THE REVERSING THEORY REDUCED TO PRACTICE.

EDITOR ITEMS :—In the January ITEMS OF INTEREST I noticed a case of chloroform syncope treated by Dr. Albert I. Garland which attracted my attention. For the benefit of the profession, I will give you in a few words my success, which will be an indorsement for Dr. Garland.

In June 1883, a patient aged fifty, called at my office in order to have some teeth extracted, and proposed taking chloroform. I examined the heart, which I found normal. I commenced the administering; but soon discovered a wiry and almost stopping of the pulse. A mixture of chloroform and ether was then used. He was soon under the influence and there was no struggling. I at once proceeded with the extraction, when suddenly a deep pallor came over the face, I grasped the wrist, but no pulse could be found, I listened for respiration but none could be found. I noticed blood, in a clot, in the back part of the mouth and, thinking I could easier remove it by standing the patient on his head, I at once grasped him around the waist with my right arm and stood him on his head, and with my left hand I removed the clot.

I imagined that the color of the face had changed, and so I continued shaking for at least three seconds. I then replaced him in the chair, and to my surprise the heart was in action, though no respiration. Then I resorted to artificial respiration though without success. I examined the pulse and again found it nearly gone. I then grasped him by the feet and again stood him on his head, giving him such a shaking up that he gave a grunt. I then sat him on the chair, and, to my delight, I found I had completely restored respiration, and the action of the heart. I then resorted to the battery, which I always have in readiness. I used no ammonia or brandy. Since June 1883, I have had three similar cases, the last being December 1884, all treated in like manner, and with the same result.

Respectfully,

KIMBALL, DAK.

L. MILLIRON.

BOSTON, MASS., January, 1885.

ED. ITEMS :—It has seemed to me it would be an act of kindness to warn the profession against having any dealings with a person calling himself "C. A. Kendrick," who claims on his card to be "proprietor of the Medical Directory Bureau"—New York, Boston, Philadelphia, Chicago, St. Louis, etc.

Here he represented that he was getting up a Medical and Dental Register for Boston and vicinity, and solicited subscriptions for the sum of one dollar and a half per copy. He exhibited a list of the persons who desired the work and who had paid in advance. This

was in December, 1883, and the directory was to be delivered in the Spring of 1884. Failing to receive my book, I addressed a note to him, and in August, I had a reply which I give in full, as it shows how plausible he is :

" *My Dear Sir* :—Having just returned from a trip to New York and find your two communications awaiting my attention, I would say in reply to questions about the Medical and Dental Register, that I have delayed the delivery of a large number of the books until I could have printed and inserted a list of corrections and additions which will make the work more complete and satisfactory to my subscribers. This will be done now in a few days and you will receive your copy at the earliest day.

Respectfully,

C. A. KENDRICK."

He gave as his Boston address, the Medical Library Association Rooms, 19 Boyeston Place.

In December, we had our dental meeting at the above mentioned rooms, and on inquiry, I was told that said Kendrick was a "fraud"—that he asked permission to have his letters sent there and that *in every case where money was paid in advance no book was delivered*. It was supposed that he had gone to Providence, and that he must have taken as much as a thousand dollars with him. I wrote to him in December, at Providence, and from there the letter was sent to Worcester, and as it was not called for in that place, it has just been returned to me. "*Aliena optimum frui insania*."

ONE OF THE VICTIMS.

Dental Literature for Physicians.—It is well for a dentist to take some good medical periodical ; it is equally an advantage for physicians to take some good dental magazine. This would bring the two professions closer, and each would be instructed in much of importance that is now hidden from both. The following letter shows how this is viewed by a physician :

SAN FRANCISCO, Cal., Jan., 30th, 1885.

T. B. WELCH, M. D.:

Dear Sir :—Accidentally a late copy of the "ITEMS OF INTEREST" fell into my hands, and in it I found so many *good* and *real* "Items of Interest" that I concluded to subscribe for it. While I am not a dentist, yet I cannot avoid the conviction that it will contain many things that I will find of service as a physician and surgeon. Therefore I enclosed \$1 for a year's subscription, which I hope will reach you safely.

Respectfully,

G. W. DAVIS, M. D.

A Visit to the Dentist, is a neat little pamphlet issued by C. S. Stockton, D. D. S., Newark, N. J. It is a humorous account of one in distress in search of a "tooth puller."

INFLAMED TEETH AND EXPOSED NERVES.

DR. M. A. WEBB, MARENGO, ILL.

It is generally supposed, when a tooth or its surroundings give evidence of inflammation, it will terminate in ulceration and suppuration. I think from my experience this is not so. Generally, even without treatment, after a few days, a change for the better will take place; and, with proper treatment, the tooth is almost certain to be permanently saved. I have had patients come to me with inflamed teeth and surrounding parts that did not terminate in abscess, though accompanied with swelling of the face. We should impress our patients with the value of their teeth, and refuse to extract when there is a chance of saving them.

My extracting for toothache does not average one tooth a day, and every day I save aching teeth.

Can we all say this? If we cannot, it is time we were exerting ourselves to be able to say it.

In regard to the treatment of exposed and aching pulps, I will say, I invariably prepare and fill them (generally with plastic) at the same sitting; and I am seldom obliged to extract afterward.

Gold is not safe in these cases. The time is past when it can be considered the only material worth using. It has a field entirely its own, but amalgam and other plastics have a field even broader; and therefore they are the greater blessings to humanity.

Platina, which is used for the base plate, is a very useful metal in our specialty. It was discovered by the Spaniards in 1741, and given the name of *platina* (little silver) on account of being found in the form of granules, rounded and flattened. The name is still used by the majority of dentists who have occasion to employ it. But chemists and, lately, a few dentists give it the appellation of *platinum*, an arbitrary name, and inconsistent with the present nomenclature of the metals. Prof. Cooke, in his "Principles of Chemical Philosophy," page 101, says: "The names of the elements are not conformed to any fixed rules. Those *which were known before 1787* retain their old names, such as sulphur, phosphorus, arsenic, antimony;" and he might have added, cobalt, *platina*, nickel, manganese, and tungsten, discovered about the time of and after platina. It is evident, from this, that chemists and others have blundered into the use of the word platinum. The old Spanish word platina, I prefer. It has a sweet, soft sound, and, moreover, is the name associated with many improvements in dentistry, being eminently a dental name. It was used solely, no doubt, till long after Sir Humphrey Davy suggested in the beginning of the present century, the application of the Latin suffix *um* to all new elements.—*Ambler Tees*.

"A GAS FURNACE FOR FIRING DENTAL ENAMELS."

Editor "ITEMS OF INTEREST":—In a paper on the above subject in your January issue, by W. H. Rollins, I note the remark:—"Porous fire-clay was known in Strabos' time, though, T. Fletcher, with his usual capacity for adopting other men's ideas has recently re-invented it."

I cannot be suspected of seeing porous fire-clay in use in Strabos' time, but it certainly has been known and used before my own time. I was the first to make use of it for small gas furnaces, and if there is any "adopting of other men's ideas" in the matter, Dr. Rollins is entitled to the credit of it.

He also states that he "has been able to do what has never been done before in a gas furnace,—produce heat enough to bake in as short a time as forty minutes from the time the gas is lighted." He may be well acquainted with the history of "Strabos' time" but he knows very little of the advances in his own profession, or he would have heard of Verrier's furnace, known in England for some years past, which, without the assistance of naphtha or hot blast, will bake teeth in twenty to twenty-five minutes from the time the gas is lighted, and therefore, his achievement, even with his capacity for adopting the ideas of Neilson, Siemans and myself, is not so brilliant as he imagines it to be.

THOS. FLETCHER.

WARRINGTON, England.

Extracting Temporary Teeth.—Dr. Hayhurst says: This subject has been of as much interest to me as any branch of operative dentistry. There is no more embarrassing question, I guess, before the world of dentistry, than this thing of extracting the deciduous teeth. The parents, with softened heart and tender feelings for their offspring, will come to you and say in piteous tones, "My child is suffering so: won't you extract his tooth?" You examine his teeth and you find there are certain indications of decay in the deciduous teeth; your sympathies immediately go forth toward the parent and the child, and you inquire of yourself what is best to be done is with difficulty you divest yourself of this sympathy toward the patient and toward the parent which biases your judgment, and the teeth are likely to be extracted. If you plant yourself down on a philosophic basis, there would be no trouble about it; but how can you ignore the sufferings of a human being? I cannot do it. If you could, you would say, "Let that tooth stay there," even if the crown is off, nearly, or it is decayed in such a manner that it is almost impossible to fill it. While the deciduous teeth are soft and it is very difficult to preserve them, people say they will go anyhow,—that we will lose them anyway,—and all that must be taken into consideration. If they are

extracted, as is too often done, the result is injurious in after-life. It produces, or tends to produce, what I call—I don't know whether the term is original with me or not—an American face. We have an American face because diet, nervous organization, habits of life and the early extraction of children's teeth all tend toward this want of expansion of the arch. Look at the English, the Irish and the Germans, and you will not find these narrow arches and hatchet-faces. I think the early extraction of children's teeth is a great evil; I don't say a growing evil, for there is a tendency to look at it in the right light. The more intelligent dentists and people become, the less you will see of this peculiar and characteristic American face.

The editor of New Remedies says: "Considering the opportunities for education in this country, it is really quite remarkable how many persons are to be found attempting the study and practice of pharmacy and medicine, who read but poorly, write miserably, can hardly solve a problem correctly in the elementary rules of arithmetic, and know so little of geography that the Englishman who comes to this country expecting to shoot buffaloes on the Jersey flats is quite their superior in this respect."

The dental profession is not altogether free from the same incubus, as evinced from the following letter received some time since :

"Dear Sir I see your Advertisement in the C—— U—— and t——, teeth Extracted Buy the Use of Vitalized Air. If it is no seacret I would to know how it is maid, wot will it cost to fit op fore it and Oblege
Resp — — — — D.D.S"

It would be an item of interest to know how the above title was procured.—*Dent. Advertiser.*

Ignorance of Physicians on Dental subjects.—Dr. W. H. Trueman, says: It is singular how much ignorance the majority of physicians have of dentistry. The indisposition many have to lancing the gums of a teething child is an instant in point. They contend that the operation is useless, yet dentists know how beneficial it is, how much relief it gives the little sufferer, and how much pain they escape by it. Many adults can testify to the wonderful relief they experience from lancing the gums during the eruption of wisdom teeth. Another point I would allude to the frequency with which patients come to us with directions from their family physician as to what the dentist must do, oftentimes such directions being ridiculous, and making it appear the dentist was a "journeyman" working under the directions of the physician, instead of being, as he is, the master workman of the case in hand. These things should be tolerated sometimes, but at other times such patients should be told what they deserve. Patients come with directions from the physician to have a certain tooth extracted,

or the nerve of another killed, and feel much astonished, and sometimes aggrieved, if these directions are not carried out. Some patients will come to have a tooth extracted, and if, after an examination, the dentist sees that it can be saved and made serviceable and useful, and on these accounts refuses to extract it, they get angry. Some say "the tooth is my own, and I have the right to have it extracted if I wish." Their arms or their hands are likewise their own, but would they, on this account, demand amputation of the surgeon? These persons forget that their lives are likewise their own, but they could not, on this account, demand that they be taken, or take them themselves.—*Office and Laboratory.*

Temporary Teeth.—Parents generally do not appreciate the value of temporary teeth. As a rule, when they become troublesome, they take the advice of the family physician, and have them extracted. But the pain can generally be alleviated, and the usefulness of the tooth restored by some of the soft fillings, which can be put in quickly and painlessly. I make it a point in my practice to treat children with great kindness, and gain their confidence at once. The whole treatment of the child may be summed up in a few words. be kind, firm, quick, and never, under any circumstance, deceive. Parents, as a rule, use poor judgment with their children in this, and for this reason, it is not well to be guided too much by their advice. I once made a great enemy of a child doing as the mother insisted that I should do. The temporary teeth are much softer than the permanent; therefore they require attention oftener. Parents should be directed and advised to bring their children to the dentist, at the age of two and a half, or three years, and in most cases, even at that age, you will find caries. The child from this age should be under the eye of one responsible dentist, and the parent must be advised of the necessity of bringing it to your notice at least once in six months. In so doing, you may watch the progress of caries, and prevent it in a measure, and take proper care of the first permanent molars as they present themselves. Most persons labor under an erroneous idea in regard to the six-year molars, thinking that they belong to the deciduous set, and make no effort to save them, till they have toothache, and then, instead of preserving, insist that they shall be drawn. But if you have the child under your care you will evade this trouble by educating the parent, as well as by watching the teeth.—*S. C. G. Watkins.*

To take grease spots out of cloth. Powdered fuller's earth 1 ounce, just moisten with spirits of turpentine, add salt of tartar 1 ounce, best potash 1 ounce, work the whole into a paste with a little soap.

ART.

The beautiful is always wedded to the good and true. Art itself is a worship of something ideal, far surpassing the real. Some entrancing vision of loveliness, having its consummation in the One Altogether Lovely. If you approach the great world-painters—those whom we gladly call Masters—you will find them all reverent men. They love to linger before a canvas whereon they have pictured some tender face of a saint, or the Christ, or the Madonna. Carlo Dolci made it his practice to paint some figure of Jesus every Passion-week. On seeing Donatello's statue of St. Mark, a great artist exclaimed:—"Such a noble figure as that must have written a Gospel!" Fra Angelico painted as he prayed, and prayed as he painted. Now it is on the sublime statue of a Moses that Michael Angelo is engaged—now it is on the awful scenes of the colossal fresco of the "Last Judgment," in St. Peter's. Murrillo's heart burns as he depicts the rapturous face of Mary Magdalene gazing on the cross. Raphael's spirit is exalted, till it glows like those of Peter, James and John, as his brush attempts the radiant glories of the "Transfiguration." We feel again something of the sweet experience of the loving Disciple as we gaze on the "Last Supper" of Leonardo Di Vinci, and a strange awe creeps over us—as it were the very shadows of Calvary—as we look in worshipful silence on Guido Remni's "Crucifixion."

C. S. STOCKTON.

 Editor ITEMS:

Please *don't* stop my ITEMS. I like my religion mixed. The word religion means literally "*to bind together*." I like morals with medicine, and a little divinity, *bound together* with dentistry, even though its source be human, will not hurt me. Somehow I believe that conscience, integrity, dentistry, honesty, cleanliness and good living, *bound together*, all make a very good religio-dental pudding; at any rate I am very fond of it, and I surmise that many of your subscribers smack their lips over it, and, like Dickens' "Oliver," want more. Yours in haste,

W. N. METCALF.

NEW HAVEN, Conn., 1-28-'85.

My way of "keeping the spittoon sweet or clean" is to clean it *thoroughly every time* it is used. Like my instruments, no two patients are allowed its use without a good cleaning. And when I say "a good cleaning" I mean it. I've been in practice some twenty years, and don't remember that I have ever had any trouble in that matter. "Shoot" the coppers, and *watch the spittoons*.

CAREFUL.

Attention to Children's Teeth.—The teeth of children are neglected entirely too much. If we devote more care and attention to the first dentition, we won't have so much trouble with the second. And great care should be taken not to frighten a child. If we do no more than get them in the chair the first time they come we have done well. I don't think it is necessary to go to work and do excavating and put in fillings you expect to stay there any great length of time. Do just enough to prevent the decay from going on, with the intention of re-filling them in a year or so. I find that by excision of the proximal cavities in the molars or grinding teeth, the decay is easily arrested. I just cut away enough of the tooth to get rid of the decayed parts and round the edges, making, instead of two fillings, one V. There is no chance for food to get in and lodge there, the tooth is preserved, and you don't have so much trouble with the second set. I think these teeth are preserved better by separation in this way, in many cases, than they would be by filling. In extracting children's teeth I think dentists are very much to blame. We are to blame for doing it. I think the most particular time to look at the teeth is between fifteen and twenty-one or twenty-two years of age. I think there is never a full ossification till that time. I try to have my patients come in every few months, young ladies especially—not on account of their being young ladies, of course—but I think the teeth of young ladies are more inclined to decay than those of the other sex. I believe in having them come pretty often, and when you see any indication of decay, attend to it right away, and in future years you will not have so much trouble.—*G. Carleton Brown.*

Children's Teeth and Physicians.—I have found it very difficult, in my practice, to get physicians to do what seems to be proper in regard to children's teeth. In the larger towns, no doubt the physicians have more knowledge and more liberal ideas concerning such matters; but in my town we have four or five physicians who will extract teeth and who make it their specialty, seeming to have no idea concerning the preservation of the deciduous teeth. Not more than three weeks ago a little one came to me whose teeth I had watched quite a while, and I had endeavored to inculcate into the minds of her parents the importance of preserving them. The child's mother told me that their family physician had forbidden any further work on that child's teeth because the child had a sore throat, and he said the sore throat was caused, not by my working on her teeth, but by the fillings. The child had abscesses formed on both sides of the lower jaw.—*George C. Brown.*

When hiccupping, smell something that will cause you to sneeze and see how soon your hiccupping will cease.

THE RATTLE OF THE BONES.

How many bones in the human face?
Fourteen, when they are all in place.

How many bones in the human head?
Eight, my child, as I've often said.

How many bones in the human ear?
Three each, and they help to hear.

How many bones in the human spine?
Twenty-six, like a climbing vine.

How many bones of the human chest?
Twenty-four ribs, and two of the rest.

How many bones the shoulders bind?
Two in each—one before, one behind.

How many bones in the human arm?
In each arm one; two in each fore-arm.

How many bones in the human wrist?
Eight in each if none are missed.

How many bones in the palm of the hand?
Five in each with many a band.

How many bones in the fingers ten?
Twenty-eight, and by joints they bend.

How many bones in the human hip?
One in each; like a fish they dip.

How many bones in the human thigh?
One in each, and deep they lie.

How many bones in the human knee?
One in each, the knee-pan, please.

How many bones in the leg from the knee?
Two in each, we can plainly see.

How many bones in the ankle strong?
Seven in each, but none are long.

How many bones in the ball of the foot?
Five in each, as the palms are put.

How many bones in the toes half a score?
Twenty-eight, and there are no more.

And now altogether these many bones fix,
And they count in a body two hundred and six.

And then we have in the human mouth,
Of upper and under, thirty-two teeth.

And now and then have a bone, I should think,
That forms on the joint, or to fill up a chink.

A Sesamoid bone, or a Wormian we call,
And now we may rest, for we've told them all.

Successful Men.—In every class of business the princes of the trade are the men who began with nothing, and who look around on all the attainments of their age with the honest gratulation that they have been dependent for their success and prosperity on their own integrity, fidelity, and skill. And the circumstances of the commencement of active business life should not be regarded as a reason for regret or a cause for sorrow, for there is no other process less painful or harassing which will so surely stir up the gift which may be in a man, and bring out for circulation and use the veins of gold which may be embedded in his hidden mines. If he be faithful, honest, honorable, his early straitness of condition will be an everlasting blessing. It is a soil that will yield to appropriate cultivation the richest and most lavish fruit. But it will involve care, thought, labor, purpose, and unshrinking honor to prevent its becoming not merely a perplexity in occupation, but a poison to the soul.—*U. S. Economist.*

Case Hardening Small Tools.—It is said that the engravers and watchmakers of Germany harden their tools in sealing wax. The tool is heated to a whiteness and plunged into the wax, withdrawn after an instant and plunged in again, the process being repeated until the steel is too cold to enter the wax. The steel is said to become, after this process, almost as hard as the diamond, and when touched with a little oil of turpentine the tools are excellent for engraving and piercing the hardest metals.—*Scientific American.*

A leather varnish or polish said to be of peculiar adaptation, is prepared at Gunther's establishment, Berlin, by mixing a filtered solution of eighty parts of shellac in fifteen parts of alcohol with three parts of wax, two of castor oil and a sufficient quantity of pigment; this mixture being evaporated in a vacuum to a syrup. The varnish is applied to the leather with a brush moistened with alcohol.

It is a sign of egotism to talk too much.

COCOINE.

Much has been said in dental journals recently, both pro and con, regarding the use of the new anæsthetic, Cocaine, in dentistry. While a few have been unsuccessful in its use, it is my experience that beneficial results follow when used properly. Within the past few weeks I have tested its qualities as an anæsthetic in scores of cases, in every one of which it has proven entirely satisfactory. There appears to be no pain in extracting, and only a slight sensation of pain after a tooth is drawn. In sensitive dentine I have found its use all that could be desired.

My method of using Cocaine has been as follows: With a hypodermic syringe I inject two or three drops of a four per cent.

solution into the gums, on either side of the tooth, slipping the needle as far as possible. After four minutes have elapsed another similar application is made, when the gum is dried and Cocaine applied to the outside with a camel's hair brush. At the end of two minutes more, making in all ten minutes from the first injection, the gum lancet is used and the tooth extracted, the whole operation being painless. In preparing cavities for filling, by using a bit of cotton, saturated with the four per cent. solution, I have been able to use the dental engine without causing pain. In all of my experience with Cocaine I have yet to find a case in which it has not been effective. I have tried it on the most sensitive teeth with the best of success. all kinds of teeth, from those which were ulcerated, decayed or broken off, and from which the patient was suffering great pain, to those which were sound, and the results have been the same—painless.

With the more fortunate brethren of the profession I cry, "Eureka!" We are for painless dental surgery. The people demand it, and in Cocaine, properly administered, they have it.

M. C. ARMSTRONG.

BROOKVILLE, Ind.

CURING AND BLEACHING AN ABSCESSED TOOTH.

DR. WELCH:—At your request, I send you the description of a case treated a year ago. The tooth was a right superior, central incisor in the mouth of a young lady of twenty-five. The pulp was dead, probably from the effects of wedging from wood, for the purpose of filling by a former dentist, and was considerably discolored. On opening the canal, the pus flowed freely. In a few moments, by the patient producing a suction much more pus followed, and a slight bleeding. Warm water was now injected into the canal to thoroughly cleanse it. Tipping the chair well back, and the chin of my patient well up, an ethinal solution of iodoform, containing a little excess of iodoform was carried up the root with a jeweler's five-sided broach wound about with silk floss. This was used as a piston of a force pump, and with a few movements the iodoform was forced through the apical foramen into the seat of the abscess. I then filled the cavity with cotton and dismissed the patient. In three days, on removing the cotton, the pus flowed nearly as freely as the first time, followed by a slight bleeding. When this ceased, I injected the iodoform through the canal to thoroughly disinfect it, and carried a small piece of gutta-percha to seal the apical foramen, and filled about one-quarter of the root canal. (If the canal had been very small and difficult to fill, I should have used liquid gutta-percha). The cavity and the remainder of the canal was then filled with alum, and with a Hypodermic syringe Labarraque's solution was injected through the

alum which immediately threw off chlorine gas. This was repeated three times. In about twenty minutes the tooth was nicely bleached. Then I filled the canal with gutta-percha, and the cavity with gold. I completed the whole operation at the second sitting. For two days there was slight inflammation, and then it entirely disappeared.

It is now about ten months since the operation, and everything is all right. There has been no more trouble, and it retains its normal color almost perfectly. In cases where iodoform is used less treatment is required than with other medicines, as will be seen by this case. I rarely treat any case more than three times, since I have used iodoform. I frequently cleanse the canals of foul, decomposed pulp matter, and fill at the same sitting without any fear of after trouble.

Yours, &c.,

MONTCLAIR, N. J.

S. E. G. WATKINS.

"C O. D."

G. W. ADAMS, D. D. S., BRISTOL, PA.

In the last number of the *Dental Practitioner* Prof. Guilford gives some excellent advice in regard to presenting and collecting bills. After exhibiting different customs in vogue among dentists and physicians, he seems to endorse the practice of sending bills at the first of every month, according to a printed foot-note on the bill-head. I endorse that plan, provided we cannot do better. I have found it a good rule to set forth the idea that *terms are cash*; and that we expect the money as soon as the services are completed. And why not? If you go to a photographer to get your "picture tuk" you must pay before you can even sit down in his chair! Is not a dentist's chair as good as a photographer's? If you go to a daily paper with a "Want" or a "For Sale," you must pay in advance! Why is a printer better entitled to pay than a dentist? Dentists are fully as worthy and are as much respected as either printers or photographers; and if we *respect ourselves* others will soon learn to respect us, and any business arrangement that is reasonable. Let it be understood in advance what your terms are, and that no deviation therefrom is desired, then very few persons will receive your services without expecting to pay as soon as their work is done. In a few isolated cases you will lose their patronage. But these will generally be your poorest customers. Others will be attracted by your business habit. There is nothing unreasonable in cash payments. People are coming more and more to realize the advantage they bring to both, worker and patient. Very few, if any, of those who practice "C. O. D." are found willing to go back to the old credit system.

The reform rests entirely with *the profession*—"if each one will mend one" the reformation will soon be an accomplished fact. Let

every person whose eye catches this scrap begin right here and do what he can to promote the cause; and at the end of the years look back and see if any cause of regret appears?

Some fifteen years ago I presented my bill to a well-to-do customer as soon as my services, rendered to different members of his family, were completed; and after looking it over, said: "If you will throw off something for cash I'll pay you now." He was a new customer—this was our first transactions I resolved to "*begin right*," and so told him politely that my terms, according to the printed bill-head, were cash, and that I had not charged anything with the expectation of making any deduction. After waiting awhile, and finding that I just meant what I said, he paid the bill in full cheerfully, and was well satisfied; and never after asked me to "throw off," though I have done a vast amount of work for him and his family. This world is just as we make it—a *Paradise*, or a *Pandemonium*.

EDITORIAL REMARKS.

The practice of enforcing payment for work as soon as completed, is easier than is generally supposed. We practiced dentistry for 26 years, principally in Minnesota and New Jersey, and we never had any long standing accounts. When patients came for our services, we assumed they wanted to know what there was to be done and how much it would cost. The first thing we did, therefore, was to make a chart of particulars, with the price of each; remarking that when we came to excavate and separate the teeth we may find more to be done, but it would be about as set forth; and that if anything more was found necessary the patient would be informed of it before it was undertaken, the price being in proportion to that then given for some similar work. Even if it was only a set of teeth to be made, with the operations generally accompanying it, the patient's name was placed in a chart in our books and an itemized account made:—teeth extracted ———; gas administered ———; temporary set of teeth, if required ———; remodeling these for permanent set ———; new teeth for permanent set, if desirable ———; and it was understood that each of these operations was to be paid for when done. In operative dentistry we did not wait till the whole work was completed, if some of the teeth required long treatment, the expense of these was deducted and the bill rendered for the rest. Even when operating for a child, we did not send our bill to the parent direct, but through the child to whom we explained every particular so that he could show the work to the parent. If the child came to have the work done, unaccompanied by the parent, a duplicate of our chart was sent before any considerable part of the work was done. It was so generally understood our terms were cash on the completion of the work patients generally came prepared at that time. If they were strangers we

contrived in some way to inform them of our usage. In fact, for much of the 26 years we had hanging in our office a small card: Payment is expected on completion of work. If payment was not made till the end of a month, a duplicate of the bill was sent with the foot note: "As we keep no accounts, we hope no offense will be taken in our asking payment as soon as convenient."

ETHICS.

Will you please answer, in the ITEMS or otherwise, this question? Is it not the proper thing for a man locating in a new place to call on the profession represented there? or is it the duty of the located dentists to call on the new man at *his hotel* before he has opened any office? Would it not show a better feeling for the new man to make the acquaintance of the resident dentist, learn his fees, etc., and not keep distant, making inquiries of others in regard to fees, etc.? What would a committee on ethics say? Please answer and oblige a subscriber of the ITEMS from its birth.

Respectfully,

T. H. DOWNING.

[We think if a "new-comer" waited for resident dentists to call on him, he would wait a long time; but it certainly is the proper thing for the new-comer to call on dentists of the vicinity in a social way, speak of his intentions, learn their fees, and have a mutual professional understanding. Professional men are supposed to be gentlemen, and this quality is the soul of ethics.—Ed. ITEMS.]

I see by the January ITEMS of some enquiries in regard to muriate cocaine as applied to painless extracting. My experiences the last three weeks have been very favorable toward the continued use of cocaine in painless dentistry. Some of my patients experience great relief from pain by its use. I have been using the 4 per cent solution for sensitive cavities preparatory for filling, as well for loose and tender teeth.

Very truly,

J. S. HARPER.

NICKERSON, Kan.

"*We Do Like Big Words.*"—An "assistant" editor of a cotemporary journal says, "dentists will find it to their own advantage and that of their clientele to gain and apply knowledge," etc. It does not sound nearly so nice to say patients as "clientele." What a pity we are obliged to inform our esteemed cotemporary that "clientele" is an obsolete word, and that even when it was in use that it meant *clients* and not patients.

Caulk's Dental Annual has come to hand for 1884-85. This year it is devoted to the collection and discrimination of dental statistics, etc., and is compiled with much care. Price, 25c. Address, L. D. Caulk, Camden, Del.

Editorial.

ANCIENT DENTISTRY.

Dr. J. G. Van Marter, of Rome, Italy, has furnished the January *Independent Practitioner* with an interesting article on "Some Evidences of Prehistoric Dentistry in Italy ;" and the enterprising publishers have beautifully illustrated it.

The prehistoric people of Italy referred to were the Etruscans. They are supposed to have inhabited principally that part of Italy called Tuscany. Their history is shrouded in myths and traditions. Two thousand years ago, their origin and character was a debatable question with historians, and it has continued to be so ever since. As Dr. Van Marter says : They left us no key to their strange language, and no history, except that which is written in their tombs," "hidden in the bosoms of the the earth for many centuries." "Naturally, time has leveled these tombs to dust." "As a rule they cremate their dead," and, "judging from what I have seen and read, and what I have heard from scientific men, only great warriors and civilians of distinction were embalmed and laid at rest in the family tomb, in that part of Etruria included in my observations." Naturally, cremation would reduce to ashes the teeth of those entombed in urns, and two or three thousand years of time has accomplished the same for nearly all those who were embalmed and laid aside in state."

Yet, Dr. Van Marter thinks he has evidence in the contents of the tombs, that the Etruscans were "once a great and powerful nation, far advanced in civilization, science and the arts." In fact, he says : "In view of the discovery of wonderful surgical instruments. found in the ruins of Pompeii, instruments that have been restored in recent years to meet the demands of modern surgery, one is almost inclined to call a halt before expressing an opinion, and wait a little longer for the excavators to dig up Etruscan or Umbrian telephones, and evidences of railroads and steamboats."

But it is chiefly to their knowledge and practice of dentistry that Dr. Van Marter specially calls our attention. The Editor of the *Independent Practitioner* assures us, "It is here that the archæologist would most naturally look for any fine gold work, and Dr. Van Marter has probably struck one of the richest veins for the archæological dentist that the world affords." And, in view of all the evidences of prehistorical dentistry among this people, Dr. Van Marter triumphantly asks, "What conclusions are we to draw from these evidences of early dentistry ?" Surely this is raising our expectations

to their highest point. Let us hope these evidences will be so clear, so well authenticated and so numerous, as to put to rest this vexed question of prehistoric dentistry.

Let us look among all these fine surgical instruments and other "evidences of civilization, science and the arts," found in these tombs. What dental instruments are there? None. What, none? And what evidences of dental skill does he unearth? None. Is it possible? We must be on the wrong track. Surely this cannot be "the rich vein for the archæological dentist?" Yes; it was to this very field we were invited. It is here that Dr. Van Marter says he has been studying "the vestiges of the race of men which preceded the great Roman people," to find relics of the dental art, but has found—nothing. And though at last, "through the kind permission of the Mayor of Corneto," he was "afforded every facility for visiting many of the subterranean Etruscan and Roman tombs," yet, neither here nor in any of his former researches throughout Italy, had he found anything that gave the least clue to any kind of dental work, nor had any of the thousand of other explorers—intelligent, industrious and specially competent—who had been succeeding each other in their search for relics for hundreds of years. They have found nothing, either in tombs or catacombs, here or in any other country, that had shown dentistry an ancient art.

Where, then, will he take us for evidence of prehistoric dentistry? Ah, here are two men and a woman that hold the key to the situation. Let us hear what they say: "Sir Spencer Wells," says the Doctor, "relates to me the story of a dentist who practiced in Egypt, who had seen mummy teeth, filled with a fusible metal. The noted English archæologist and writer of Rome, Mr. Forbes, assures me that he has seen mummy's teeth that had been filled with gold. A noble Roman princess has told me that she has seen Etruscan teeth that were artificially filled, and has promised to soon open the way for me to see them. Personally, I have not seen any evidence of dental skill."

And are we brought to this?—mere rumor—mere untracable stories such as we have all heard often, but none which we are able to verify?

Who was this Egyptian dentist, and where and when did he find his mummy? And then, would it not have been well for Dr. Van Marter to have ascertained with some definiteness, where Mr. Forbes, the Englishman, found his mummy? Was it not the specimen in the English museum, which, by a more careful examination, is found to be an imposition? Some wag had put the filling in the mummy's tooth, and in a very clumsy manner too. But even if the Englishman's story was true, and that of the Egyptian dentist too, what have

these to do with Etruscan dentistry? As for the Etruscan mummy the noble Roman princess saw, or that some one had told her of, we can say nothing till she is ready to conduct a competent judge to see it. We all have patients who tell us wonderful stories, and as indefinite and untraceable and incredible as wonderful.

But let us not despair. Though Dr. Van Marter can show us nothing of his own finding, and though we do not feel inclined to accept his three stories as verified, let us allow him to take us to an eastern museum—the museum of Corneto. Here the Doctor shows us two specimens; and though they are under lock and key, he is able to make a drawing of them, which he represents. Only one of these, however is claimed to have belonged to the Etruscan race; the other is simply of the Roman people who followed the Etruscans. The Etruscan piece is a band of soft gold, designated by Dr. Van Marter as a partial denture after the plan of what we now call bridge work, and made as “an arrangement for holding in position three superior artificial teeth. In this drawing [accompanying the article] the cuspid and lateral incisors were natural teeth, while the two central incisors were evidently carved from some large animal's tooth, to fit the space.” “The missing artificial first bicuspid, and the adjoining natural tooth—had crumbled to dust when the relic of human misery was unearthed.”

But even concerning this Etruscan specimen there are some things a little singular.

1. Dr. Van Marter does not explain how it is that some of these teeth had “crumbled to dust,” while the others remained to be included in the drawing. Can we imagine what his explanation would be?

2. We are not told whether this gold band was found in position on the jaw or entirely detached. The inference is that the jaw and the whole skull had “crumbled to dust” with the missing teeth, for we know all the bones of the body are much less durable than the teeth. Every thing was gone, then, but this gold band and these two natural teeth and the two “evidently carved from some large animal's tooth, and these not found where the body might be supposed to have laid but “beneath the ruins of one of these Etruscan tombs.” Such a story should have strong verification and then it would be inconsistent.

3. Is it not singular that this is the only ancient relic of prosthetic dentistry ever seen by Dr. Van Marter or any one else, though so many have been searching for them for so many years? Even the editor of the *Independent Practitioner* says, this is, “as far as we know, the first *fully attested* account of such work.” We will be thankful for this much, but all must regret there is not more, both of “the fully attested account” and also of the number of finds. But,

4. Is the account of this one "fully attested?" Dr. Van Marter does not find it, it is shown to him in a museum; some one else is said to have found it, he does not know who; where the tomb is situated he is not informed; even when it was discovered no one seems to remember; nor can he know, therefore, how much credit to give to the history related of it by the keeper of the museum. True, the mayor of the city tells the Doctor—even certifies—that the story is true, but he does not claim to know it of his own knowledge or that he ever saw the man who did know, nor does he claim there is any written, definite record of it.

5. By the side of this relic, Dr. Van Marter finds another specimen, "a partial denture which was taken from an ancient Roman tomb, dating back four hundred years, B. C. The remaining tooth in this specimen was evidently a human tooth, as, no doubt, was the missing one. It represents the early Roman method of replacing two inferior incisor teeth on the Etruscan plan." But the story of this piece also rests on the unsupported assertion of this museum-keeper. There is no record of the tomb, where found, by whom found, or the circumstances of the find, and we all know how verbal traditions magnify by repetition, and that this is so even with stories that pass through but few hands, when each has a motive to make the tale quite as big as he received it. As this was found in a Roman tomb, the tomb might have been a comparatively modern one, or of a subject placed there at a comparatively recent date.

No wonder Dr. J. Marion Sims expressed to Dr. Van Marter "his astonishment" that there could be found such relics, for though he was one of the greatest archæologists, and had personally explored these Italian fields and miles of catacombs, he had never found anything resembling dental work, nor had heard of anyone who had, and had not before heard of such a relic even in an Eastern museum, where we are supposed to be able to find anything we most desire, but where, really, everything should be examined critically to escape imposition, and where the account of everything has to be taken with several grains of allowance. Their stories are often the laughing-stock of sensible men.

The Boston Vegetable Anæsthetic Company's Vapor does not seem to meet with uniform favor. How singular that men can be found to invest their money in almost any new thing which may be proposed, however wild and foolish.

Facts is the concise title of a new dental journal published in Chattanooga, Tenn., by E. M. Martin, M.D.D.D.S. It is brief, spicy, and practical. It is a quarterly. Price, 50 cents.

DISCOLORATION OF GOLD FILLINGS.

1st. Many attribute the discoloration of gold fillings to the character of the gold used. In some instances this may be the cause, but not often. Nearly all the gold now supplied to the profession is pure. Some time since we knew a dealer who sold gold foil under three names at three prices, made by the same gold beater from the same gold ribbon, in the same manner. Have we not all noticed that, at times, when we have filled several teeth, for the same patient, at the same sitting, from the same book of gold, one or two fillings will afterward tarnish, while all the rest remain bright? If the discoloration is the fault of the gold, why have not all tarnished?

2d. "May not discoloration come from loose packing? We will not say, but, in such fillings, the saliva and particles of food entering may become so decayed as to produce discoloration, but we think such instances are rare. Some of the hardest gold fillings we have made have discolored, and some of the loosest packed fillings we have seen had remained bright for years.

3d. Some attribute it to the steel instruments used. But if it is caused by particles of steel left to rust on the surface of the gold, why should it effect one or two (and if two, almost invariably contiguous) and not all? and in a few of the fillings of one patient, while in forty patients all are good? Why does not these steel instruments effect all?

4th. "Is it not the greater acidity of the mouth of some that causes discoloration of their gold fillings?" What acid is it that can have such a decided effect on gold? Decide, and having also decided on the percentage of acidity in the mouth of such a patient, subject the rust foil, or any old filling not already tarnished to the same acidity out of the mouth. If you find any discoloration tell us.

5th. "But it is the extreme concentration of acid just under the gum, next to the effected filling." Well, analyze it, and, having found its character and concentration, prepare it, and plunge in your gold. Keep it at the same temperature of the mouth, and for a time full long enough. Then what? Your gold is not tarnished. If it was when you placed it in, it is now probably bright.

There may be two causes for these discolorations:

1st. Nascent acid. There are instances of flabby, inflamed gums where, by the presence of ammonia and nitric acid, nascent (that is, forming) acidity may, perhaps, be strong enough to discolor gold. But undoubtedly the more general cause is—

2d. Mercury. This, we all know, has a most immediate and powerful effect in discoloring gold—producing the very color here deprecated. A very small particle will spread itself over and effect a large surface, specially when assisted by the burnisher. But how can it get there? We had filled several cavities of teeth with gold for a

lady one day. On polishing two that were contiguous, we found it impossible to get a good color. We left them for the next sitting. How we were mortified a week afterwards on her return to find that these fillings had turned decidedly dark. The mystery was explained when we remembered that on account of these fillings being very close together we had used our thin amalgam burnisher instead of our gold one. Only an hour previously we had used it for amalgam. By cutting down the surfaces of these gold fillings with strips of sand paper and repolishing with the gold polisher, a good color was obtained which was permanent. At another time we found an approximal gold filling thus tarnished only a few days after filling, though we know we had not used the amalgam spatula. As we drew our strip of sand paper between the teeth, we brought out from beneath them a tiny piece of amalgam which had been carelessly dropped in the mouth on filling a tooth with this material.

"I DIDN'T MEAN TO."

Mere thoughtlessness does an incalculable amount of harm. Most of our great fires are the result of thoughtlessness; so of our railroad and steamboat catastrophies. How often does "I didn't think" in an office or factory ruin its proprietor; or, at least, do great mischief. Every business man is shy of boys of this name; and equally shy are they of even skilled workmen who are frequently blundering from inattention. It is the thoughtful workman who succeeds; thoughtlessness in any one brings ruin and disgrace.

And yet we all, from green hand to accomplished workman, seem to excuse ourselves, if we can show an act or a remark was only from thoughtlessness. As, "I didn't mean to" is assured, we expect all will be overlooked. What an error. It is now a principle of law that drunkenness is no excuse for crime; the man had no right to be drunk. So with thoughtlessness; it is a defense that lowers our standing while it does not excuse our thoughtlessness.

We once had a student of dentistry who was very slow. At first we thought him lazy. We soon saw it was carefulness; for we could depend on him for any thing he could do, though it might take him a good while to do it; and it would be done just as well as he could do it. What he could not do we had to show him with a great deal of patience; for he seemed to be "thick headed." Though we told him over and over again, and showed him with a great deal of particularity, he would persist in comprehending every part till he had it fully; then it was not forgotten. He never had to say "I didn't think," and we never had to reprove him for thoughtlessness. We have often thought since we would rather have a "thick headed" student, than a smart boy by the name of "I didn't think."

With all of us, our influence would be much better if we were more careful of what we said and did. It is thoughtlessness that makes us tell many falsehoods—they are not lies because they are not intentional false statements, but they are falsehoods for all that. So when we blunder, it is not intentional and therefore not a crime, at least in a moral sense, but the consequence may be perfectly frightful—all from thoughtlessness. If people can depend on us for accuracy of statement and exactness of workmanship, it is as good as money in bank; for these qualities are sure to bring money there; but thoughtlessness and carelessness go hand in hand to disgrace and ruin us.

If from thoughtfulness we allow our instrument to slip and cut the cheek, pierce the tongue or enter the nerve of the tooth, it does not cure the lesion nor prevent the pain by saying "I didn't mean to." Even if no reply is made to such an excuse, and there is no resentment of indignation, the patient will remember it against you, and remember it to tell others how careless you were. All our work would be done with more precision and success if we were more thoughtful, and the same characteristic would be continually increasing our skill and our bank account.

THON.

New words are continually coming into use. Their appearing generally shows their usefulness. For a long time, the poverty of our language in its lack of a personal pronoun to represent the sex as *one* or *the other*, has been acknowledged and lamented. We presume such a sentence as the following is never written or spoken without a sense of embarrassment, as showing the deficiency of the English language in this respect: "If any teacher is tardy he or she must present himself or herself to the principal before going to his or her room." Cut out "he or she," "himself or herself," and "his or her," and fit in their place *thon*, *thons* and *thons*. (Pronounce *thon* with the sub-vocal *th*, as heard in *thou*, and with the *o* as in *on*.) Now see how euphonic your sentence reads: If any teacher is tardy *thon* must present *thons* to the principal before going to *thons* room.

Of course we shall need a little familiarity with the new comer to our family, but it will certainly grow in favor as it grows in age. Soon the astonishment will be that it was not born sooner. Take a few parallel sentences:

"Not one was exempt; but as each passed from the boat he or she was searched for dutiable articles that might be concealed about his or her person." Read it thus:

Not one was exempt; but as each passed from the boat *thon* was searched for dutiable articles that might be concealed about *thons* person.

"Each shall speak for himself or herself; and no one shall be condemned but by the verdict of a jury of his or her peers." Better

Each shall speak for thonself; and no one shall be condemned but by the verdict of a jury of thons peers.

"Any person making himself or herself obnoxious by loud talking or other noise shall forfeit his or her rights to the reading room, and shall be excluded from its privileges till he or she has paid ten cents to the treasurer." Improve this thus:

Any person making thonself obnoxious by loud talking or other noise shall forfeit thons rights to the reading room, and shall be excluded from its privileges till thon has paid ten cents to the treasurer.

Any scholar violating this rule shall forfeit his or her scholarship.

Any scholar violating this rule shall forfeit thons scholarship.

"Two things shall be essential to membership in this society: 1. His or her name shall appear by his or her own signature in the roll of members; 2. He or she shall pay to the treasurer one dollar."

Two things shall be essential to membership in this seciety: 1. Thons name shall appear by thons own signature in the roll of members; 2. Thon shall pay to the treasurer one dollar.

WE DO NOT CHANGE SUDDENLY.

The great oak that falls so unexpectedly before the wind, broken in the very trunk, may not be prostrated by the severest wind that ever beat against its side. Go nearer and examine. By a disease ever so slow, and ever so minute in its insidious details, as it has preyed on the tiny wood cells, one by one, year after year, finally produces rottenness to the very heart. Thus the whole body has become weak, and the circulation of its life current becomes sluggish. If the fiber within had remained sound, the very wind that ruined the great tree would have caused its roots to reach out farther for support, and it would have been strengthened in every part.

To the casual observer, the oak when it fell was as sound as it was comely. Its beautiful shade was a cooling protection from the burning sun, and the huge trunk a refuge for the storm-chased traveler. It is only by close observance of little things that inward disease is made manifest. Look among its prostrate, broken branches. Do you see here and there among the green boughs, little dead twigs? You must search carefully, for their neighbors, in very shame, have hidden them among their own foliage. Look too at the bark of the great trunk. Do you see over much of its surface little pits the sagacious and hungry woodpecker has bored to find worms? Also, observe here and there narrow gaps in the brittle bark, laying naked the cracked wood. And what is this fungus growth, cropping out on one side, from root to branch? Ah, all these, and other little things, point

to rottenness within. To the casual observer, these are such trifles, they are lost in his admiration for the grandeur of the whole tree; and the careless traveler seeks its shelter in the storm without suspicion. Yet these little things are unmistakable proof of saddest import and imminent danger.

So our manners, our appearance and our general behavior may seem unexceptionable to the casual observer; it is the little act, the trifle hardly intended, little things so incipient as scarcely to be called acts, that show the real character. They may hardly be called blemishes, yet they have their significance.

But as the foliage of the tree may conceal defects, so fair speech may conceal evil thoughts. The peculiar expression of the eye may deceive; much of the character may be hidden beneath a cloak; the motive of the act may be misunderstood; set phrases may be disguises; the guarded language of ceremony may show "how not to tell it;" all these may deceive. As with the tree, the things that are apparent to every passer by may look like vigor and moral health. For such a one to fall surprises us. And yet, if we had been acquainted with the real tone of the character—that which we read between the lines—the little expressions, the careless words, even the unclothed insinuations which come fresh-born from the heart, we could tell you the man's thoughts, describe the passions, and paint the hue of his very soul. Nay, we would not ask so much. Let us hear only what is not said, but implied; what is conspicuous for its absence—the reserved, suppressed, hidden little things that plain speech cannot form—the ulterior meaning, the clearer because unspoken, the stronger because suppressed, the more conquering because unnoticed; these will tell the character. Every one of them will point within to vigor or weakness, to health or disease, to purity or lust, to life or death. The very flavor that is sent forth—the unconscious influence—may tell all, as it soothes or irritates, attracts or repels, refreshes or poisons. If these give indications of rottenness of heart, the surprise should be that the man can mask his real character so long: his fall is inevitable, but should never be considered sudden. This is what makes reputation so generally a true representation of the character—makes it so hard to be hypocrites—often making it easier to be known by others than to know ourselves. Yet, they are such little things, we cannot see them by searching; they are so ethereal, we cannot feel them by reaching for them. They are known only by their effects; and these effects are not tangible but by our inner consciousness; our moral and mental perceptions have to determine their quality. But if our susceptibilities are made delicate by refinement, if our judgment is made clear by purity, if our response to influence is made accurate by spiritual insight, little things will tell.

A SMOKE OR A WIFE.

We were trying to persuade a fine lawyer, one day, that smoking was injuring him. "Oh, I know it," said he, "but its no use, its my life. You know my wife, isn't she a nice woman? and yet I prefer my pipe to her company. You see I must smoke even after I get to bed, to get to sleep; and my wife finally said, 'I must take my choice, but I couldn't have both: I must choose between her and my pipe.'"

"And is it possible you choose your pipe?"

"Well, I loved the company of my wife, but I must say, I loved my smoke better; and so I let her take a separate room. Now I often have to take another smoke toward morning to complete the amount of sleep I ought to have. The fact is, the more a fellow smokes the more he must, and this *must* becomes the inevitable."

I saw the hearse before his door some time after this. I inquired the cause. "O," said a neighbor, "the esquire is dead; they say he smoked himself to death. At any rate, his wife found him dead Tuesday morning when she went into his room to call him to breakfast. There he lay with his pipe in his hand, and his room so saturated with tobacco smoke she could hardly breathe. He spent half the night, sometimes, smoking.

A Mother to Mothers is a treatise principally on children's teeth by Mrs. M. W. J. We have published this in the *ITEMS* in the form of letters, which we are confident has interested our readers. Every letter has been plain, direct and instructive. Since we commenced publishing them they have been issued in pamphlet form, but the edition was soon exhausted. The author has now thoroughly revised, and somewhat enlarged it, for a second edition, and we have carried it through the press.

It is just the thing for dentists to have in their office to entertain those in waiting. Many in this way will become so interested in it they will want to possess it. We have never seen anything so well adapted to interest and instruct a young mother; and we believe dentists would make a good profit on them by making presents of them to their lady patients, specially to mothers and fathers, who should be the more immediately interested in the wholesome advice here given. But, as a rule, there is no necessity for giving them away. They will readily sell for twenty-five cents each, and in return, bring much patronage that would not otherwise be received. They are on sale by Drs. T. B. Welch & Son, at 25 cents each; a discount in quantities.

Embryology, by J. L. Williams, D.D.S., New Haven, Conn., is a very interesting essay. Anyone wishing to study this subject minutely, would do well to possess it.

Miscellaneous.

WOULD YOU SHINE?

Telemachus, it will do you ever so much good if every once in awhile you will go away by yourself for an hour or two and get real well acquainted with yourself. "As a man thinketh, so he is." And you will never "know thyself" thoroughly unless now and then you get alone and sit down and talk to yourself, cross examine yourself; learn what you know; what are your ambitions, your aims, your hopes—what is your real character: because, my dear boy, your reputation may be one thing and your character quite another. Sometimes it does happen, in this faulty old world, that a really good man, a man whose character is above reproach, may bear the reputation of a rascal; and once in awhile—two or three times in a while, in fact—a rascal wears the stolen reputation of an honest man. Go away now and then, my boy, and sit down all by yourself and think. Think of nothing under the sun only yourself. Yes, I know, my son, there are men who never think of any thing else, and God never made more useless men; but that is because they do all their thinking about themselves publicly and aloud. They never think alone.

You will be honest with yourself when you are alone, my boy. A man is apt to be honest with himself in the dark. He does not pose in heroic postures when he has no audience. When he stands face to face with himself, with no human eye to watch him, and no human ear to listen to his confession, and only his Maker, who knows every secret motive and thought of his life to see and to listen, a man has to be honest. How could he be a hypocrite then? Why, my boy, I sometimes think when the "two men went up into the temple to pray," the Pharisee was partly led to pray as he did because he prayed for an audience; to the congregation, rather than to God. He had his position in society and in the synagogue to maintain, and he wanted every man who heard that prayer to know just what kind of a man he was and how good he was, and so he told all the good things about himself that he knew. "I am not as other men are, extortioners, unjust, adulterers, or even as this publican." But the poor publican, "standing afar off"—ah, that was what made him honest; he was away from the crowd; nobody could hear him; he was alone with God, the omnipotent and omniscient, who knew the secret heart of the publican better than the poor man knew it himself, and knowing this, standing face to face with himself, he had to be honest; he saw and he knew how weak and faulty he was—how marred was his life with bright promises and poor, broken, incomplete fulfillment; and as he faced himself and realized how weak and faulty all his life had been and was, he could not and "would not so much as lift up his eyes unto heaven, but smote on his breast, and from his penitent heart and quivering lips broke the old prayer, the cry for mercy that has welled up from human hearts ever since, echoing the wailing cry of the poor man who stood afar off: "God be merciful to me, a sinner."

Get away from the crowd a little while every day, my boy. Stand

one side and let the world run by, while you get acquainted with yourself, and see what kind of a fellow you are. Ask yourself hard questions about yourself; find out all you can about yourself. Ascertain from original sources if you are really the manner of man people say you are. Find out if you are always honest; if you always tell the square, perfect truth in business deals; if your life is as good and upright at 11 o'clock at night as it is at noon; if you are as sound a temperance man on a fishing expedition as you are at a Sunday-school picnic; if you are as good a boy when you go to Chicago as you are at home; if, in short, you really are the sort of young man your father hopes you are, your mother says you are, and your sweetheart believes you are. Get on intimate terms with yourself, my boy, and, believe me, every time you come out from one of those private interviews you will be a better, stronger, purer man. Don't forget this, Telemachus, and it will do you good.—*R. J. Burdette.*

THE MEN WHO ARE PROMOTED.

The young men who receive promotion are the men who do not drink on the sly. They are not the men who are always at the front whenever there is any strike, nor are they the men who watch for the clock to strike twelve, and leave their picks hanging in the air. They are not the men who growl if they are required to attend to some duty after the whistle has sounded. They are the men usually who pay the closest attention to the details of their business, who act as if they were trying to work for their employer's interest instead of to beat him at every crook and turn. They are the men who give the closest attention to every practical detail, and who look continually to see whether they can do any better. This class of men are never out of a job. They are scarce. They never strike, they never loaf, and they do not ask for their pay two or three weeks before pay day.—*Ed. in Manufacturer's Gazette.*

The editor of the Youth's Companion has had an interview with Lieutenant Greely, and says: Of the *six* who lived to see their country again, all were men of the most strictly temperate habits in every particular. *Four* of them never used tobacco. The two others would sometimes, on festive occasions, to oblige friends, smoke a cigarette or a part of a cigar. They took no tobacco with them among their private stores, and cared nothing for it. Of the *nineteen* who perished, the large majority were users of tobacco, some in moderation, some to excess. The first man to die was one who had been in former years a hard drinker, and there is reason to believe the deaths of several others were hastened by previous habits of excess.—*Christian Advocate.*

Bad articulation of a filled tooth is often occasion for severe soreness, and sometimes of serious inflammation. In the first years of our dental practice we generally referred such disturbance to having approached too nearly the pulp in excavating, or to a too severe pressure of the filling where the floor of the cavity was very thin, or from thermal changes. These may sometimes be the cause, but more frequently, we now think, it is from a too great pressure in occlusion. Look on the surface of your filling and see if the antagonizing tooth has not made a bright spot on it. Grind the surface down here, and see if there is not almost instant relief.

LEMON JUICE IN MALARIA.

A lemon is cut up, peel and all, into thin slices, which are then put into three glassfuls of water, and the whole boiled down to one glassful. It is then strained through linen, squeezing the remains of the boiled lemon, and set aside for some hours to cool. The whole is then taken fasting. Dr. Mascagni, of Italy, has succeeded with this remedy in curing an obstinate case of malaria in his own person, that had resisted quinine. It is well known that in Italy, Greece, and North Africa; they often use lemon juice or a decoction of lemon seeds, as a remedy in malarial fevers of moderate intensity; and in Guadeloupe they use for the same purpose a decoction of the bark of the roots of the lemon tree. All these popular practices tend to show that the lemon tree produces a febrifuge substance, which resides in all parts of the plant, but which would seem to be most abundant in the fruit. Among the popular remedies employed against malarial infection, this is the most efficacious, for it can be employed with good effects in acute fevers. But is especially advantageous in combating the chronic infection, which is rebellious to the action of quinine, and in removing or moderating its deplorable effects.

The Velocity of the Moon.—We can faintly picture, perhaps, how it would seem, from a station near the lunar orbit, to see the moon—a moving world—rush by with a velocity greater than a cannon ball in its swiftest flight; but with equal speed its shadow actually travels along the earth; and now, if we return from our imaginary station to a real one here below, we are better prepared to see why this flying shadow is such a unique spectacle; for, small as it may be when seen in relation to the whole globe, it is immense to the observer whose entire horizon is full with it, and who sees the actual velocity of one of the heavenly bodies, as it were, brought down to him. The reader who has ever ascended to the Superga, at Turin, will recall the magnificent view, and be able to understand the good fortune of an observer (Forbes) who once had the opportunity to witness thence this phenomenon, and under nearly a cloudless sky. "I perceived," he says, "in the south-west, a black shadow, like a storm about to break, which obscured the Alps. It was the lunar shadow coming toward us." And he speaks of the "stupefaction"—it is his word—caused by the spectacle. "I confess," he continues, "it was the most terrifying sight I ever saw. As always happens in the case of sudden, silent, unexpected movements, the spectator confounds real and relative motion. I felt almost giddy for a moment, as though the massive building under me bowed on the side of the coming eclipse." Another witness, who had been looking at some bright clouds just before, says: "The bright cloud I saw distinctly put out like a candle. The rapidity of of the shadow, and the intensity, produced a feeling that something material was sweeping over the earth at a speed perfectly frightful. I involuntarily listened for the rushing noise of a mighty wind."—*Century*.

THERE are men in our conventions who should be brought forward and encouraged, there are others who so persistently bring themselves forward they should be remanded to the back seats.

Petroleum ; its Probable Origin.—In a highly interesting article by the Right Hon. Sir Lyon Playfair, K. C. B., F. R. S., on petroleum, the light of the poor, he deals to a slight extent with the question of its origin. It is held by geologists that it is due to the charring action of heat on the pre-existing organic *debris*, on the bodies of trilobites, and such like remains are usually supposed to be sources of it. But, he writes, Is then petroleum cosmic? Perhaps the question is not so absurd as it appears, he replies. Recent observations on the tail of the great comet which adorned the heavens not long since showed that it contained hydrocarbons very similar to petroleum. "I do not mean to indicate," he adds, "that the comet was a huge petroleum lamp rushing through space; still the detection of hydrocarbon in it is a significant fact. It lends considerable support to the idea that petroleum is being continually formed anew in the deeper parts of the earth. In all petroleum wells water is also found. In the depths of the earth there is probably a large abundance of compounds of the metals with carbon, for we find them in basaltic and other rocks. When the crust of the earth becomes fissured, water would reach them at a high temperature and be decomposed, its oxygen passing over to the metals, while the carbon and hydrogen would unite to produce hydrocarbon, the most common form of which is petroleum. The gaseous hydrocarbons, formed by the same action, are pent up in these cavities, and when a boring is made for a well, force up the petroleum frequently as high fountains. Wells of this substance are generally found at the base of mountain ranges, as of the Alleghenies in America, or of the Caucasus in Russia. These elevations indicate cavities, fissures or crevices below, and into these, as into a receiver, the hydrocarbons may have been distilled and become condensed. This is only a theory, but it is the one which is the most satisfactory to my mind, and, if it be true, it is a comforting one, for while we find forests disappearing from the earth and coal being exhausted without being formed afresh, petroleum—which as fuel has about twice the value of coal—is being constantly formed and deposited in nature's reservoirs.

Petrified Wood.—The petrified wood which is so abundant in Arizona, Wyoming, and Rocky Mountain regions, is utilized in San Francisco, where there is now a factory for cutting and polishing these petrifications into mantelpieces, tiles, tablets, and other architectural parts for which marble or slate is commonly used. Petrified wood is said to be susceptible of a finer polish than marble or even onyx, the latter of which it is driving from the market. The raw material employed comes mostly from the forests of petrified wood along the line of the Atlantic and Pacific Railway.

Formula for Bleaching Sponges.—Remove the sand by shaking; wash the sponges in hot water, and press as dry as possible. Then place in a bath of dilute muriatic acid for half an hour, remove, and after washing well in hot water, place in a bath of fresh acid, to which has been added six per cent. of hyposulphite of soda, and allow it to remain for twenty-four hours. The sponge is then finished by washing in water and drying.

TALENT AND GENIUS.

Talent is capacity ; genius, intuitive perception. Talent deals in thoughts, vast and multitudinous ; genius in devices, few though definite, circumscribed though practical, despised perhaps by others though precious in its own eyes. Talent appeals to the multitude, seeks appreciation and loves high places ; genius works in isolation, is indifferent to flattery and is often unknown to fame. Talent seeks reward ; genius, success. Talent puts on dignity, folds itself in fine robes, and expects homage ; genius contents itself with poverty, obloquy, and humiliation, if only it may work out its mighty problems for the world's betterment.

"*In great haste.*"—We sometimes receive articles for the ITEMS, accompanied with a note something like the following :

"Enclosed you will find an article for the ITEMS. It has been written in great haste, so I must ask your indulgence as to poor writing. Please correct any mistakes of construction or spelling that I have made in my hurry. Respectfully, ———"

And so we are required to spend from one to six hours on reconstruction and orthography. This is willingly done if the author has done his best. But so many do not give us their best efforts. Some write even in pencil and on poor paper ; or, if they use ink it is so pale as hardly to be legible. If only the thought is rich, we would not discourage any sending us your chirography and faulty composition, if they can do no better, But we must ask our friends to do their best.

We have received a copy of the "Five Years' Transactions of the Odontological Society of Philadelphia." It is the embodiment of much thought and ripe experience, and will well pay the thorough study of the profession. A limited number is for sale by the Secretary, Ambler Lees, D. D. S., 548 N. 17th street, Philadelphia, at \$3.00 per copy.

THE OHIO STATE DENTAL SOCIETY.

This association was *re organized and chartered* October 31, 1884, It will be officered as follows : President, C. H. James, of Cincinnati ; Vice-President, H. H. Harrison, of Cadiz ; Secretary, J. R. Callahan, of Hillsboro ; Treasurer, G. W. Keely, of Oxford ; and will meet on the last Wednesday of October, 1885, at Chillicothe, Ohio.

J. R. CALLAHAN, Sec'y.

The Problems of Nature, 21 Park Row, New York, is worthy a place on the office-table of every dentist. It is excellent reading for both dentist and patient.

The Seventeenth annual session of the Southern Dental Association, will be held in New Orleans, La., commencing Tuesday, March 31st, and continue four days.